

CLAIMS

WHAT IS CLAIMED IS:

5 1. An exhaust assembly for use with a source of breathing gas having a delivery conduit and a patient mask for interfacing with a patient, said assembly comprising:

 a first tubular conduit adapted to be coupled to the mask;

10 a second tubular conduit adapted to be coupled to the delivery conduit;

 means for coupling said second tubular conduit within said first tubular conduit wherein a clearance is disposed between said first tubular conduit and said second tubular conduit; and

15 a means for permitting CO₂ laden exhaust through the clearance between the first tubular conduit and the second tubular conduit.

20 2. The exhaust assembly of claim 1 wherein the clearance forms a baffle chamber means for reducing exhaust noise.

 3. The exhaust assembly of claim 2 wherein the first tubular conduit comprises a mask connection end, an intermediate stepped portion, and an exhaust end.

4. The exhaust assembly of claim 3 wherein the mask connection end is L-shaped.

5 5. The exhaust assembly of claim 3 wherein the second tubular conduit comprises a delivery conduit connection end opposite a first tubular conduit connection end, an intermediate stepped portion and an intermediate exhaust portion adjacent to said delivery conduit connection end.

10 6. The exhaust assembly of claim 5 wherein the stepped portion of the second tubular conduit includes a radial baffle.

15 7. The exhaust assembly of claim 5 wherein the means for coupling said second tubular conduit to said first tubular conduit comprises a plurality of retaining arms separated by a plurality of longitudinal slots disposed on one end of the second tubular conduit.

20 8. The exhaust assembly of claim 7 wherein the means for rotatably coupling said second tubular conduit to said first tubular conduit further comprises a radial segment disposed on the end of at least one of said plurality of retaining arms for retaining the second tubular conduit within said first tubular conduit.

25 9. The exhaust assembly of claim 8 wherein there are four retaining arms, two opposite retaining arms being longer than the other two retaining arms whereby pressing inwardly on the longer retaining arms causes disassembly of the first tubular conduit and the second tubular conduit.

10. The exhaust assembly of claim 7 wherein a hole is disposed on the end of each of the plurality of longitudinal slots, said holes forming inlets between the interior of the exhaust assembly and the baffle chamber.

11. The exhaust assembly of claim 5 wherein a plurality of radial holes are disposed in the stepped portion of the second tubular conduit, said holes forming inlets between the interior of the exhaust assembly and the baffle chamber.

12. The exhaust assembly of claim 11 wherein each of the plurality of radial holes includes a radially inwardly protruding boss.

13. The exhaust assembly of claim 5 wherein the exhaust end of the first tubular conduit includes a sloped portion ending in an annular portion, and the exhaust portion of the second tubular conduit includes a sloped portion ending in an annular portion.

14. The exhaust assembly of claim 13 wherein the exhaust end of the first tubular conduit includes a means for directing exhaust.

15. The exhaust assembly of claim 14 wherein the means for directing exhaust includes raised portions forming a slit pattern on the interior surfaces of the sloped portion and the annular portion of the exhaust end of the first tubular conduit.

16. The exhaust assembly of claim 13 wherein the exhaust end of the first tubular conduit includes a means for preventing blocking of the exhaust.

5 17. The exhaust assembly of claim 16 wherein the means for preventing blocking of the exhaust includes raised serrations on the exterior surfaces of the sloped portion and the annular portion of the exhaust end of the first tubular conduit.

10 18. A swivel exhaust assembly for use with a source of breathing gas having a delivery conduit and a patient mask for interfacing with a patient, said assembly comprising:

15 a first tubular conduit adapted to be coupled to the mask;

 a second tubular conduit adapted to be coupled to the delivery conduit;

20 means for rotatably coupling said second tubular conduit within said first tubular conduit wherein a clearance is disposed between said first tubular conduit and said second tubular conduit; and

 a means for permitting CO₂ laden exhaust through the clearance between the first tubular conduit and the second tubular conduit.

25 19. The swivel exhaust assembly of claim 18 wherein the clearance forms a baffle chamber means for reducing exhaust noise.

20. The swivel exhaust assembly of claim 19 wherein the first tubular conduit comprises a mask connection end, an intermediate stepped portion, and an exhaust end.

21. The swivel exhaust assembly of claim 20 wherein the mask connection end is L-shaped.

22. The swivel exhaust assembly of claim 20 wherein the second tubular conduit comprises a delivery conduit connection end opposite a first tubular conduit connection end, an intermediate stepped portion and an intermediate exhaust portion adjacent to said delivery conduit connection end.

23. The swivel exhaust assembly of claim 22 wherein the stepped portion of the second tubular conduit includes a radial baffle.

24. The swivel exhaust assembly of claim 22 wherein the means for rotatably coupling said second tubular conduit to said first tubular conduit comprises a plurality of retaining arms separated by a plurality of longitudinal slots disposed on one end of the second tubular conduit.

25. The swivel exhaust assembly of claim 24 wherein the means for rotatably coupling said second tubular conduit to said first tubular conduit further comprises a radial segment disposed on the end of at least one of said plurality of retaining arms for retaining the second tubular conduit within said first tubular conduit.

26. The swivel exhaust assembly of claim 25 wherein there are four retaining arms, two opposite retaining arms being longer than the other two retaining arms whereby pressing inwardly on the longer retaining arms causes disassembly of the first tubular conduit and the second tubular conduit.

27. The swivel exhaust assembly of claim 24 wherein a hole is disposed on the end of each of the plurality of longitudinal slots, said holes forming inlets between the interior of the swivel exhaust assembly and the baffle chamber.

28. The swivel exhaust assembly of claim 22 wherein a plurality of radial holes are disposed in the stepped portion of the second tubular conduit, said holes forming inlets between the interior of the swivel exhaust assembly and the baffle chamber.

29. The swivel exhaust assembly of claim 28 wherein each of the plurality of radial holes includes a radially inwardly protruding boss.

30. The swivel exhaust assembly of claim 22 wherein the exhaust end of the first tubular conduit includes a sloped portion ending in an annular portion, and the exhaust portion of the second tubular conduit includes a sloped portion ending in an annular portion.

31. The swivel exhaust assembly of claim 30 wherein the exhaust end of the first tubular conduit includes a means for directing exhaust.

32. The swivel exhaust assembly of claim 31 wherein the means for directing exhaust includes raised portions forming a slit pattern on the interior surfaces of the sloped portion and the annular portion of the exhaust end of the first tubular conduit.

33. The swivel exhaust assembly of claim 30 wherein the exhaust end of the first tubular conduit includes a means for preventing blocking of the exhaust.

34. The swivel exhaust assembly of claim 33 wherein the means for preventing blocking of the exhaust includes raised serrations on the exterior surfaces of the sloped portion and the annular portion of the exhaust end of the first tubular conduit.